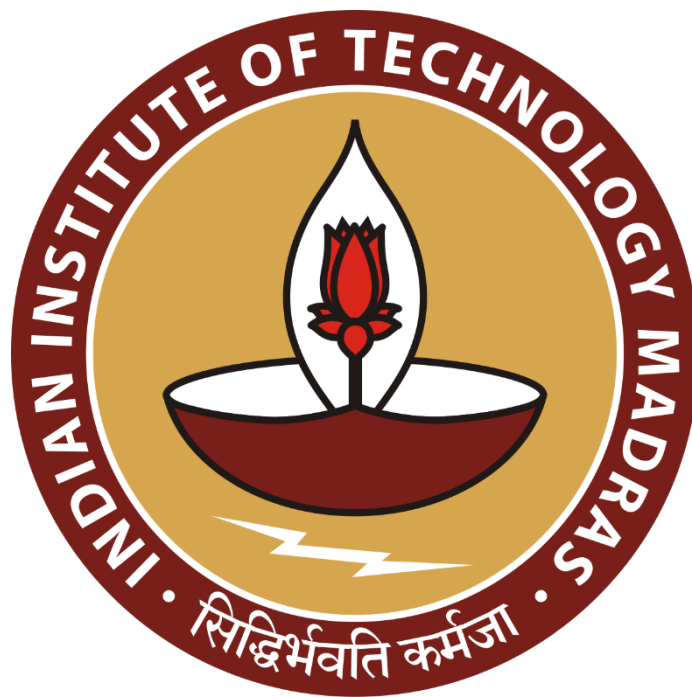# FINAL SUBMISSION

ANALYSIS OF "SREE SURIYAN" SILK SAREE MANUFACTURING COMPANY'S DATA

Submitted by

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CONTENTS:

1.EXECUTIVE SUMMARY: -

SREE SURIYAN is a small-scale manufacturing company of Silk saris. The business started supplying Pure Silk saris a three years ago. This company is located in Kumbakonam, Thanjavur, Tamil Nadu. There are ten labors working here. One labor is for creating bills and for managing accounts. Two labors are for folding the silk saris and others are weavers. In this report, the sales data, purchase data, expenses data are all provided. Sales data is based on the total amount of bills. Purchase data of the raw materials is given. Expenses data is mainly based on the dying bills.

In the analysis, the final solutions are provided for the problems like seasonal distribution of saris in past year, profit margin, highest and lowest demanded silk saris. This business is supplying saris only for a single company (TITAN COMPANY LIMITED). The purchaser's company is located in Bengaluru, Karnataka.

After analyzing the data provided by the business, graphical representations are prepared and explanation for the graphs and charts are also given. The sales data is from November 2022 to June 2023. After the results and findings are made in the given data. Some of the recommendations are also given to the business to increase the profit margin.

2.DETAILED EXPLANATION OF ANALYSIS OF DATA: -

i) Details about the analysis tools: -

- ✓ Microsoft Excel Spreadsheet Software: - The data will be given in the Excel Spreadsheet. It will be used to visualize and analyze the sales data. It has some features like tables, pivot tables, and charts will be helpful to do analysis easily.

- ✓ This Software is also used to find the average of the sales and some other analysis of the sales data of the business.

ii) Actions in Analysis of Data:-

- ✓ The types of saris data consisted of mainly three columns (saree type, month and number of saris). With these data, I have created a pivot table and a Bar Chart for analysing the data.

- ✓ The SALES data consisted of nearly eight columns , with these data I have created a pivot table for month and amount of sales. I have created a Bar chart to see monthly trend.

- ✓ Purchase data consisted of seven columns, with these data I have created a pivot table with particulars and total amount of purchase. This shows the raw materials trend.

- ✓ Purchase data is also used to analyse the weight of the raw materials and this shows which raw material is used or bought a lot by the company for the production.
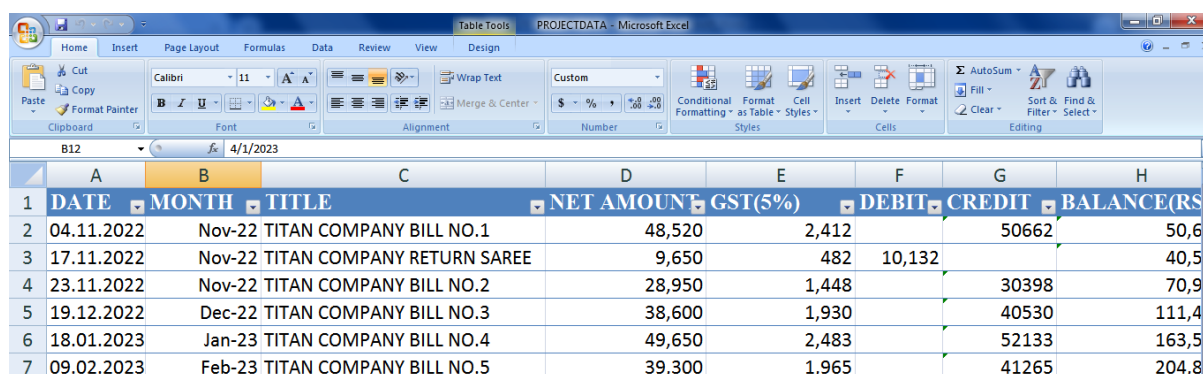
A) METADATA: -

- ✓ The Sales data provided by SREE SURIYAN is an Accounts Book and bills based. I have taken the Sales data and some other required data from the above business. I have entered these data in excel sheets for analyzing the data further.
- ✓ The Purchase data provided them are warp, weft purchased bills and etc., I have checked the bills for few months and entered them in excel sheets. The expense data provided are courier bills and other expenses bills.
- ✓ The bills are provided in a file which had bills of purchase of Jari, Kora, Weft and Warp.
- ✓ The weaver's and labors' details and their salary for weaving a saree are also given by them in a small ledger note.
- ✓ Other expenses include buying computer, printer, electricity bills and etc.,
- ✓ The sample of the original data provided by SREE SURIYAN is shown in this file. The link to see the original data provided is https://drive.google.com/file/d/1CNNqu47ZlaA2yDcSRVxweKv62tdM573F/view?usp=drivesdk
- ✓ The Google Drive link to see the other bills details is https://drive.google.com/file/d/1CP5lSFoaJuOm0oCnBQANVS-JvbcCDEHy/view?usp=sharing
- ✓ And https://drive.google.com/file/d/1CT4-bBiTYWZ3fYiF0n_4qNAu9hAHwfNt/view?usp=drivesdk for Raw material data.

B) CLEANING OF DATA: -

- ✓ The data provided by the organization is in another language and it had some mistakes in excel sheets and it was not properly written or entered. So, I have translated into English and properly aligned them with proper guidance from the owner of organization.
- ✓ The data given by them had only a few numbers of columns. So, I elaborated it by adding some other columns for GST, net amount and month
- ✓ After entering the details, the data thoroughly checked. It is filtered month wise and year wise with neat alignment of data.
- ✓ The cleaned data consists of more than ten sheets of which expenses, purchase of raw materials, sales and types of saris are mainly accumulated along with analysis of these data in other sheets.
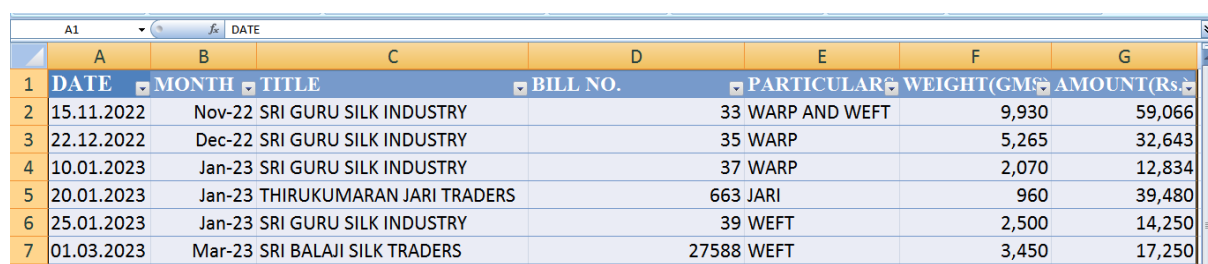
SALES DATA:

	DATE	MONTH	TITLE	NET AMOUNT	GST(5%)	DEBIT	CREDIT	BALANCE(RS
2	04.11.2022	Nov-22	TITAN COMPANY BILL NO.1	48,520	2,412		50662	50,6
3	17.11.2022	Nov-22	TITAN COMPANY RETURN SAREE	9,650	482	10,132		40,5
4	23.11.2022	Nov-22	TITAN COMPANY BILL NO.2	28,950	1,448		30398	70,9
5	19.12.2022	Dec-22	TITAN COMPANY BILL NO.3	38,600	1,930		40530	111,4
6	18.01.2023	Jan-23	TITAN COMPANY BILL NO.4	49,650	2,483		52133	163,5
7	09.02.2023	Feb-23	TITAN COMPANY BILL NO.5	39,300	1,965		41265	204,8

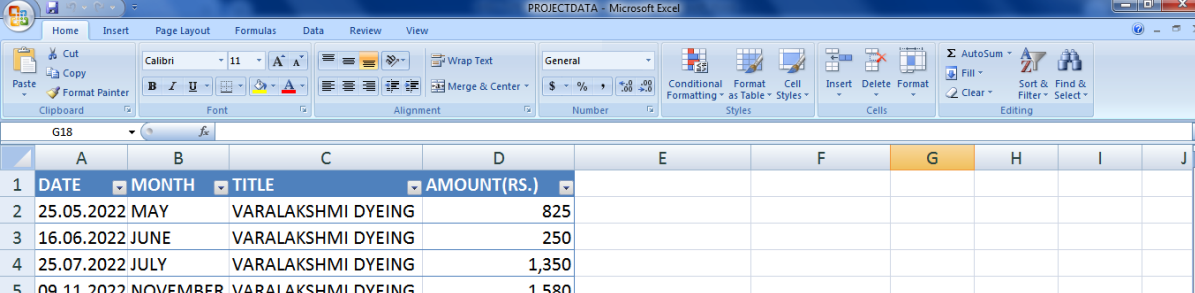Figure 1

EXPENSE AND PURCHASE DATA:

The purchase of raw materials such as jari from different shops with purchasing amount are given in the purchase data in excel link provided below

	DATE	MONTH	TITLE	BILL NO.	PARTICULARS	WEIGHT(GMS	AMOUNT(Rs.
2	15.11.2022	Nov-22	SRI GURU SILK INDUSTRY	33	WARP AND WEFT	9,930	59,066
3	22.12.2022	Dec-22	SRI GURU SILK INDUSTRY	35	WARP	5,265	32,643
4	10.01.2023	Jan-23	SRI GURU SILK INDUSTRY	37	WARP	2,070	12,834
5	20.01.2023	Jan-23	THIRUKUMARAN JARI TRADERS	663	JARI	960	39,480
6	25.01.2023	Jan-23	SRI GURU SILK INDUSTRY	39	WEFT	2,500	14,250
7	01.03.2023	Mar-23	SRI BALAJI SILK TRADERS	27588	WEFT	3,450	17,250

Figure 2

The Expense amount used for dyeing the warp is given in the expense data.

	A	B	C	D
1	DATE	MONTH	TITLE	AMOUNT(RS.)
2	25.05.2022	MAY	VARALAKSHMI DYEING	825
3	16.06.2022	JUNE	VARALAKSHMI DYEING	250
4	25.07.2022	JULY	VARALAKSHMI DYEING	1,350
5	09.11.2022	NOVEMBER	VARALAKSHMI DYEING	1,580

Figure 3

Please use the below link to see the **Cleaned data**:

https://docs.google.com/spreadsheets/d/1Co1-
PYtxl2YEZAbJgWkGfEEzU620QCul/edit?usp=sharing&ouid=112116023733103076894&rt
pof=true&sd=true

C) DESCRIPTIVE STATISTICS: -

From Sales data,

- ➢ Average sales of SREE SURIYAN based on each bills is 'Rs.53684'.
- ➢ The maximum of all bill amount is 'Rs.128100'.
- ➢ The minimum of all bill amount is 'Rs.10132'.
- ➢ Standard deviation of sales is

From Purchase data,

- ➢ Average amount used for purchasing raw materials is 'Rs.62537'.
- ➢ Average weight of raw materials purchased is '4822 grams'.
- ➢ Maximum amount is used to purchase 'warp and weft'
- ➢ Minimum amount is used to purchase 'warp'
- ➢ Maximum weights purchased is 'warp and weft'.
- ➢ Minimum weights purchased is 'Jari'
- ➢ Standard deviation of purchase of raw materials in amount is Rs.18209

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Average of all the raw materials separately is given in the following table.

PARTICULARS	Average of WEIGHT(GMS)	Average of AMOUNT(Rs.)
JARI	800	34685
RAW SILK	6400	29440
WARP	3831.25	22455.25
WARP AND WEFT	12340	70757.5
WEFT	4726.666667	27789

Table 1

Maximum of weights and amounts of all the raw materials purchased are given in the following table:

PARTICULARS	Max of WEIGHT(GMS)	Max of AMOUNT(Rs.)
JARI	960	39480
RAW SILK	6400	29440
WARP	5265	32643
WARP AND WEFT	14750	82449
WEFT	7730	44730

Table 2

Minimum of weights and amounts of all the raw materials purchased are given in the following table:

PARTICULARS	Min of WEIGHT(GMS)	Min of AMOUNT(Rs.)
JARI	720	31185
RAW SILK	6400	29440
WARP	2070	12834
WARP AND WEFT	9930	59066
WEFT	2420	14250

Table 3

➢ From Expenses data used for dyeing, average amount used for dyeing expenses is Rs.2103. Maximum amount used for dyeing is Rs.5800 and Minimum amount used for dyeing is Rs.250. Standard deviation of dyeing expenses amount is Rs.1709.

➢ Maximum number of sarees type sold is 'Pure jari and thread border' sarees is 30 sarees. Minimum number of sarees type sold is 'lotus butta pallu elephant' saree. On an average, there are a number of 17 sarees sold during these months.

3. RESULTS AND FINDINGS:-

ANALYSIS IN SALES:

Months vs Amount of sales:

➤ Monthly trend analysis of Sales Data is made using a bar Chart. It is shown in figure4. It shows that there is hike in amount of sales in the month of April-2023. There is a low amount of sales during the month of December-2022.
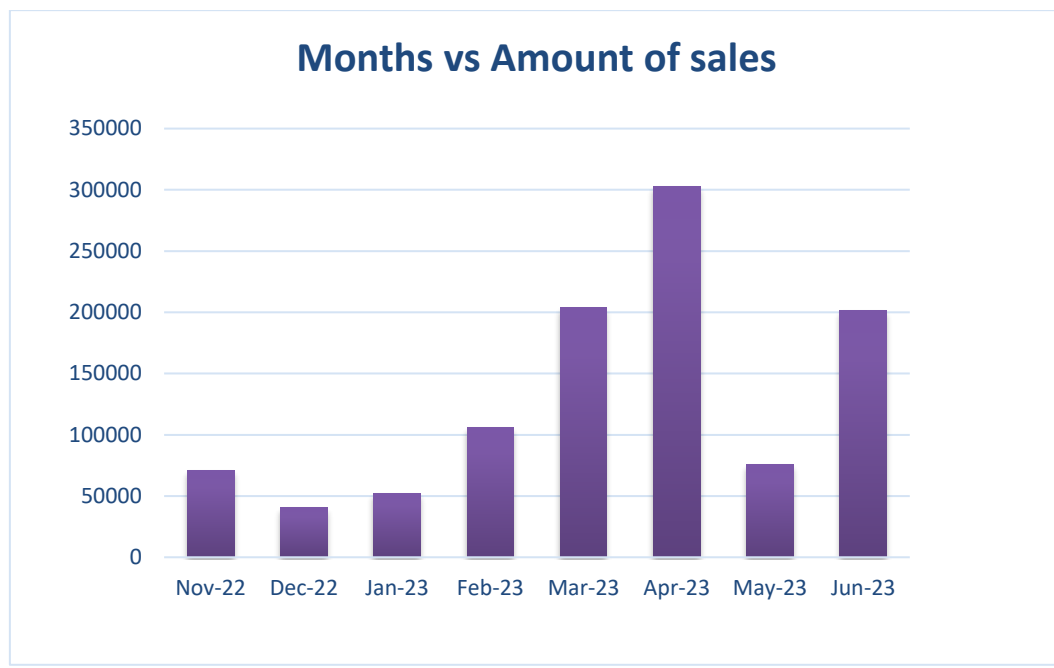

Figure 4

Months vs number of saris sold:

➤ For this analysis, a bar chart has been prepared using excel. Month ranges from January to December. This bar chart shows that there is high number of sarees sold in the month of April and there is low number of sarees sold during the month of December.

➤ This bar diagram also shows that there is nearly an equal number of sarees sold during the months of May and November. Also, during the months of March and June the number of saris is little less varying.
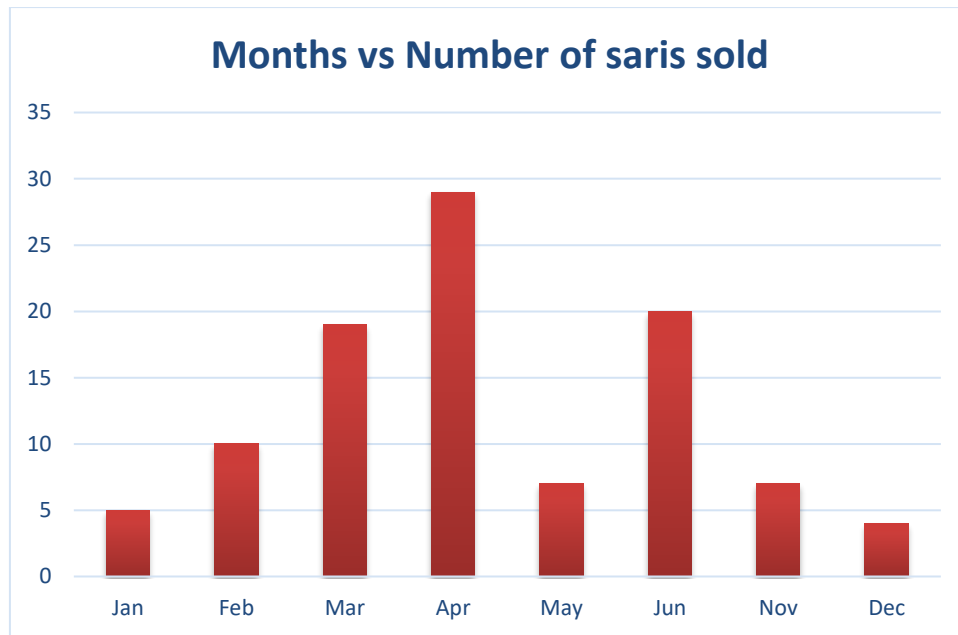
8

Months vs Number of saris sold

Figure 5

ANALYSIS OF PURCHASE OF RAW MATERIALS:

➢ Analysis of Purchase of Raw materials is made using a bar chart is shown in figure 6. This clearly shows that WEFT is purchased for a large amount. And also Raw silk was purchased for a less amount.
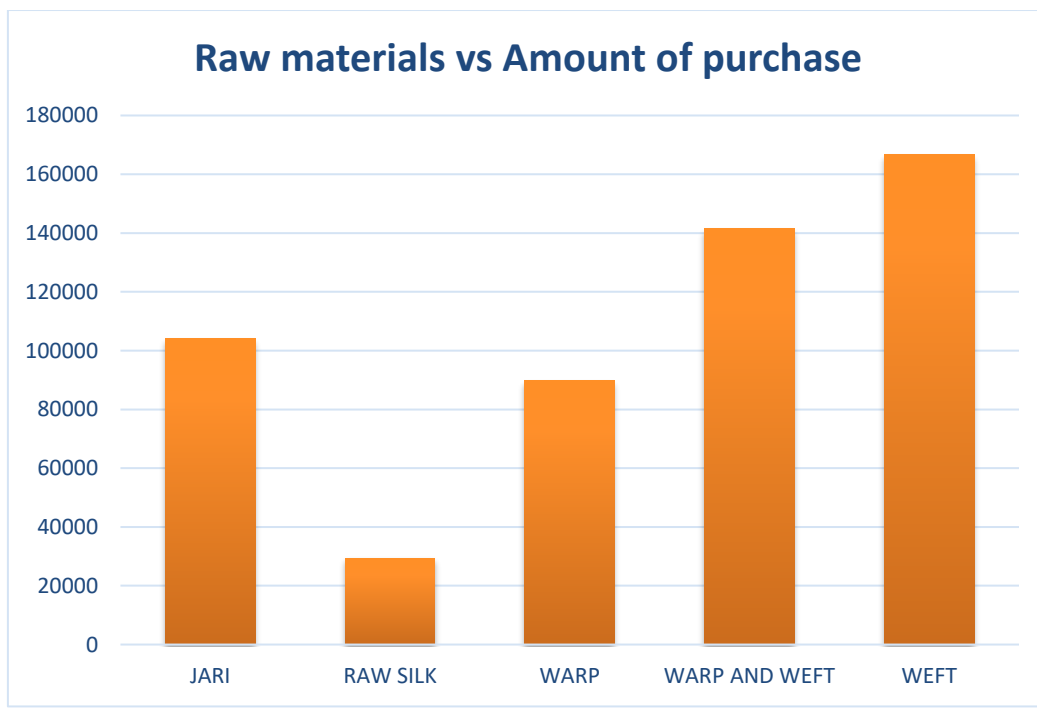

Raw materials vs Amount of purchase

Figure 6

Shop names vs Amount of purchase:

- ✓ This analysis is made using a 2D bar chart which is shown in figure 7. From this, a result is found from the total amount used for purchasing the raw materials from different shops have some variations.
- ✓ 'Sri guru silk industry' is the only business from who SREE SURIYAN is purchasing a lot of raw materials.
- ✓ The business is purchasing a less amount of raw materials from 'T.A.Ganapathy jari traders'.

Figure 7

Months vs Amount of purchase of raw materials:

- ✓ A pie-chart is used for the analysis of data across months and amount of purchase of raw materials. Using this figure 8, An outcome is found and that it is there is a lot of purchase during the month of March and there is little purchase of raw materials purchased during the month of December 2022.
- ✓ The pie-chart also shows that there is nearly same amount of purchasing is done during the months of December and April.
- ✓ The purchase during the month of May is little varied than the highly purchased month March of the year.
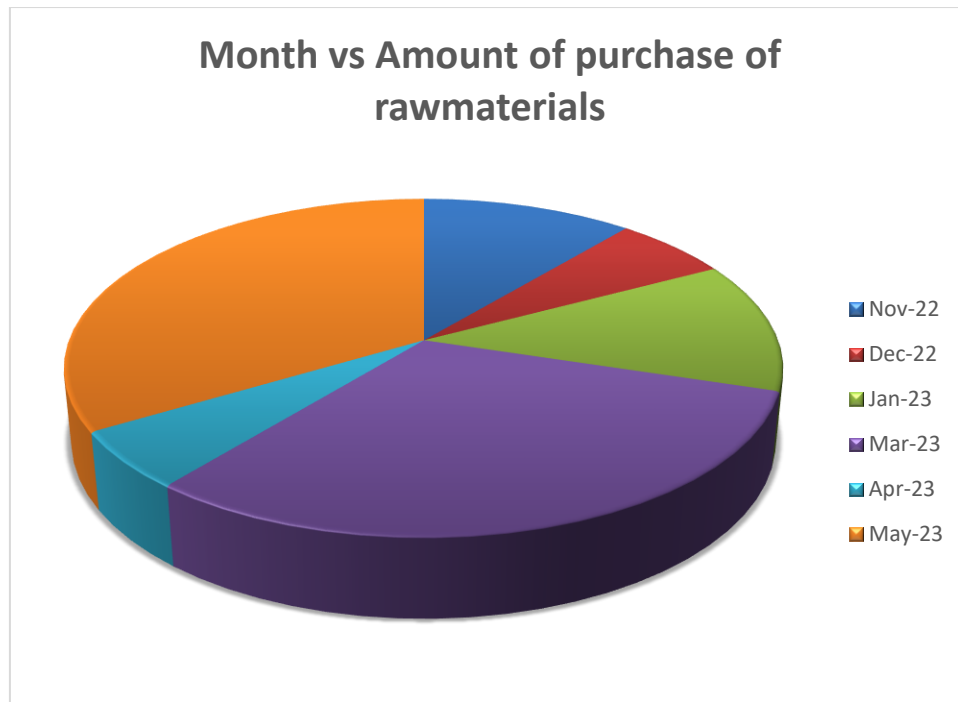
Figure 8

ANALYSIS OF WEIGHTS OF RAW MATERIALS:

✓ Analysis of weights of raw materials provide us an idea about which raw material is used a lot for the weaving process of silk saris. Weft is the highest raw material which is bought for nearly 30kgs and Jari is used only in a small quantity less than 5000gms.

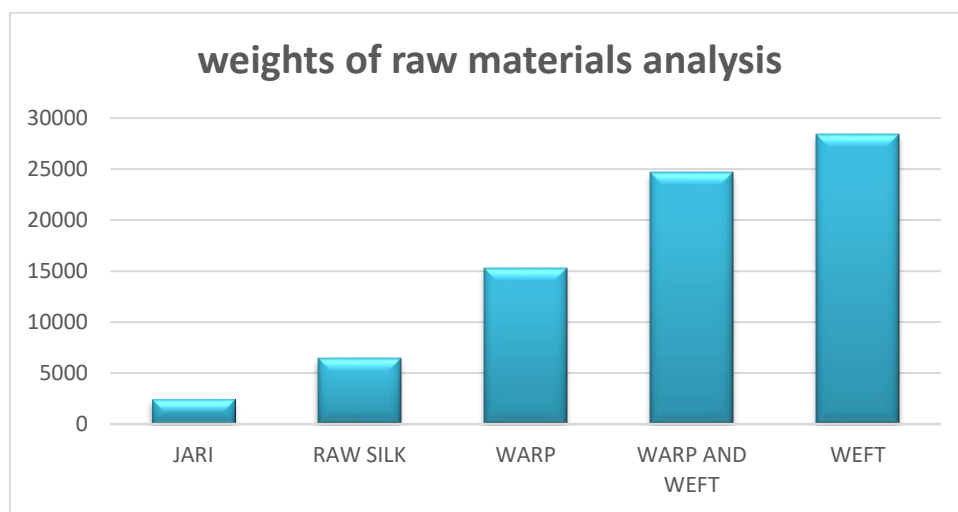✓ The analysis is made using a bar diagram as shown in Figure 9.

Figure 9

ANALYSIS OF DEMAND OF SARIS:

✓ By analysing the different types of saris data, the demand of saris is defined by using a bar chart. With this chart, we can say that pure jari and thread border saris have high demand and lotus butta pallu elephant type saree has a low demand across other saris in a total. It also shows that all type saris are highly sold in the month of april than other months.

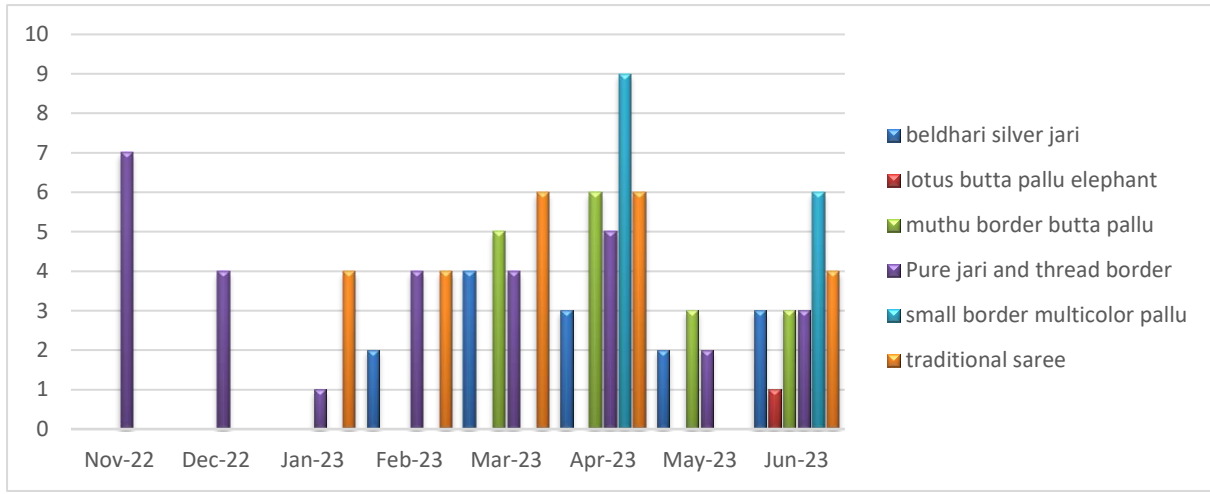

Figure 10

Saree designs vs Number of sarees:

✓ The analysis is made using 3D pie diagram with number of different types of saris. After analysing this, it is found that lotus butta pallu elephant design is on bottom of sale and Pure jari and thread bordered saree is on top of sales.

Figure 11

12
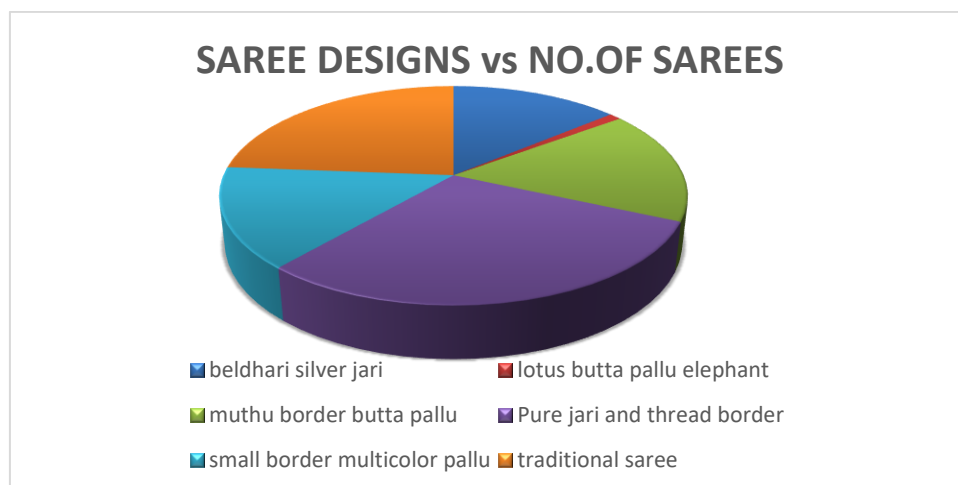
ANALYSIS OF EXPENSES DATA: -

✓ Analysis of the dying expenses across the months with respect to amount of expenses is made using the line graph. After analyzing this line graph, it is found that the dying expenses reaching a peak in the month of April.

✓ The line graph is shown below in figure 12. The line varies as the amount of expenses vary across the months.

✓ From the months July to October, the expenses are nearly forming a straight line. After the month of December, the expenses decreased a much.

✓ After reaching a peak in the mid of March and April months, the amount of expenses gradually decreases or minimizes.

Figure 12

4. INTERPRETATIONS: -

Analysis of sales data:

- ✓ Analysis of sales data shows that the sales of silk sarees are high during the month of april other than other months. So to increase the sales across the other months, the organisation should be sufficient enough to produce a lot of saris by increasing the orders from other businesses and weavers. This change in the business will surely keep the sales every month in an equal rate.

- ✓ Analysis of number of saris sold shows that the sales in the month of april is high and this in turn shows that there would be a lot of sarees in stock in the month of april. This interpretes that the businesss should produce even more sarees beforehand to sell the sarees in the month of april. The sarees are sold in a very less number during the month of december. This should be increased by urging the weavers to weave beforehand as soon as possible and this can be done by increasing the weavers rate.

Purchase data:

- ✓ Analysis of purchase data shows that weft-raw material is purchased a lot, this interpretes that it is used a lot for weaving the saris. So this should be bought beforehand and as a whole whenever the rate of weft material is in decrease to reduce the loss rate of ordered saris.

- ✓ Purchase of raw material is high from the SRI GURU SILK TRADER. As the business is purchasing a lot, the total amount can be minimized by asking the above trader for a discount in a big purchase also gives us a little profit margin rate. This in turn reduces the loss percentage even if the rate of raw materials increases suddenly.

Types of saris:

- ✓ After analysis of different types of saris the organisation supplying, it shows that at some of the months, only a similar type of saree is sold in a large amount. This can be minimised by manufacturing atleast a minimum type of saris continuously without leaving a break in any of the saris manufacturing.

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- It shows that Pure jari and thread bordered saris are sold in a lot. Also, Lotus pallu elephant border designed saree is sold only one piece.

- Muthu border butta pallu designed sarees and small border multicolor pallu designed sarees are sold equal in numbers.

Expense data:

- After analysis of expenses of the organisation, it is evident that the major expenses is used for paying salary to the labours. But paying salaries to the labours is not mentioned as a problem by the owner.

- Other expenses like buying computer, printer and courier things are making extra expenses. So this can be minimised by buying these expenditures as a whole for two or three years by investing the money in staple things.

- Dying expenses are high in the months april and march. Dyeing expenses are provided in the database format and the others are given as a total.

Return analysis:

- After analysis, it was found that there is a very little amount of returned sarees rate.

- There is only one saree is got returned during these months.

- It is approximately of 0.96% of the sales made in the given period of months.

Profit and loss margins:

- The profit margin for the organisation is found to be in negative. So, the business is facing a little loss margin.

- Since the total purchase is greater than total sales. There is no profit in the business and there is a little loss of 7% across these months.

5. RECOMMENDATIONS: -

- For increasing the sales, the business must increase the production of saris. This can be made only by increasing the Handloom-weavers.

- But nowadays, these types of weavers are not much available across India. So, the business must tell the people about the importance of the Handlooms.

- This can be done by creating awareness among the people who have a background in this type of works and now skipped it for their luxurious life. Finding the relatives or friends of the existing weavers and talking with them about the importance and it is very convenient to do easily at home to gain money.

- This can also be done by Creating awareness among the Homemakers and other jobless people to do this work and to gain money by doing work from home.

- Moreover, Safe stocking is made only by pre-ordered saris by some of the businesses. The only way to get order is to seek more businesses to get orders from them by keeping some sample sarees and going towards the best places where these types pure silk saris are highly welcomed and praised.

- Samples are also made by taking pieces of borders and cloth material of the saris material. The pictures of the saris with better quality of different colors should be shown to the other business and talk to them about the quality and special designs provided. These all ways must be an incentive to increase the sales across the other business.

- By knowing the tastes of people of different states and districts, different types of designs should be made instantly and should be shown to them to get the orders.

- Order of even a single saree is very much important to raise the business since the single order may be increased after seeing the quality of the saree.

- Amount used for the Purchase of raw materials can be minimized by purchasing raw materials as a whole from a single business with some discount percentages.

- Purchasing raw materials whenever the price is minimum and not waiting for the payment from business.

- The business should ask the saris supplied business to give the payments on time to be in proper timing to get the raw materials and give the salaries, purchase payments within time to other businesses.

- Delay in the payments will greatly affect the organization's profit value. This gradually make a loss for the organization also.

- After analysis of different types of saris, the saree with high demand is Pure jari and thread bordered saris. So, this type of saris should be mainly focused on production.
- These saris should be in first when the organisation go to ask other businesses for orders. The organisation must be polite and should take survey on which sarees are mostly liked and which are disliked mostly by the owners.
- The expenses for computer, printer and others should be done when capital is available in extra. At an instance, materials used for packing the sarees should be bought from the shops as a whole. This will reduce the amount of expenses gradually and also time saving mode.
- To increase the profit margin, the purchase of raw materials should be minimised and the total sales should be increased as much as possible. This in turn reduces the loss rate of the business gradually.
- Moreover, to increase the sales of the silk saris the quality of silk saris should be pure and colors should be attractive. For this, the business should do quality tests done and certificates should also be shown to the business to which the organization is approaching for new orders of silk saris.

APPENDIX: -

➢ The collected data from the organization is books and bills based. They have also given them in an excel sheet. Some of the data contained some mistakes and it is in another language. So, I have translated and cleaned the data in excel sheet. The collected data contained Sales data, Purchase data, Expenses data, different types of saris data and other data.

➢ Then all the analysis of data is made using the Microsoft excel. The analysis of all the data is done using charts like bar charts, pie-charts and line graphs. Then the details about the analysis are also mentioned above. The results of the analysis and findings of the analysis are also mentioned clearly with maximum, minimum and average values of all the data.

➢ From the analysis, the distribution of saris across all months is found. This in turn provided the details about the saris which are in high demand and which are in low demand are also sought out.

➢ After the analysis of data, some of the interpretations about the data is also done. Interpretations contained mainly about what may be done for increasing the sales rate and also how to decrease the rate of purchase to increase the profit margin.

➢ Some interpretations are also made on which saris are sold a much and which are sold in a less amount.

➢ After interpretations are predicted, some recommendations are also provided to the business to increase the sales. To improve sales, the business must increase the number of handloom weavers. To increase the number of weavers, awareness should be created across the people in Kumbakonam. Also seeking for other business to get new orders of silk saris is also made to increase the sales.

➢ To decrease the loss percentage, the purchase should be minimized. To minimize the purchase, the raw materials should be made full stock whenever the price is not in hike.

➢ Saris which are high in demand should be made as the main type while showing the designs with the other business owners.

➢ If all the above are made, then the business will get a better profit gain and maintain a good revenue gain with this business.